

ME-50 Expansion Amplifier

Introduction:

The ME-50 is a 2 channel audio amplifier capable of delivering up to 25W RMS per channel. It's compact, waterproof design allows for flexible mounting possibilities, and makes it simple to expand the audio system capabilities for any vehicle.

Uses:

- To add additional loudspeakers to a current audio system
- To provide amplification for a separate audio zone
- As a stand-alone system amplifier for any audio source

Features:

- Powers up to 4, 4 ohm loudspeakers
- Internal distortion limiting circuit prevents harsh distortion
- Accepts line level, or speaker level input
- Polarity switch to optimize interaction with main system
- Gain level control to match output to main system
- Supports optional external volume control
- Waterproof design for marine use

INSTALLATION INSTRUCTIONS

Mounting the ME-50:

- 1) Choose a mounting location that is well ventilated. The Amplifier generates significant heat when operating at high power levels.
- 2) It is preferable to mount the unit such that the ventilation fins are vertical or facing upward.
- 3) Drill 1/8" (3mm) pilot holes in the mounting surface corresponding to the 4 mounting flanges of the amplifier. Be sure not to drill into any critical areas of your boat or vehicle.
- 4) Fasten the amplifier to the surface securely using the 4 included tapping screws.

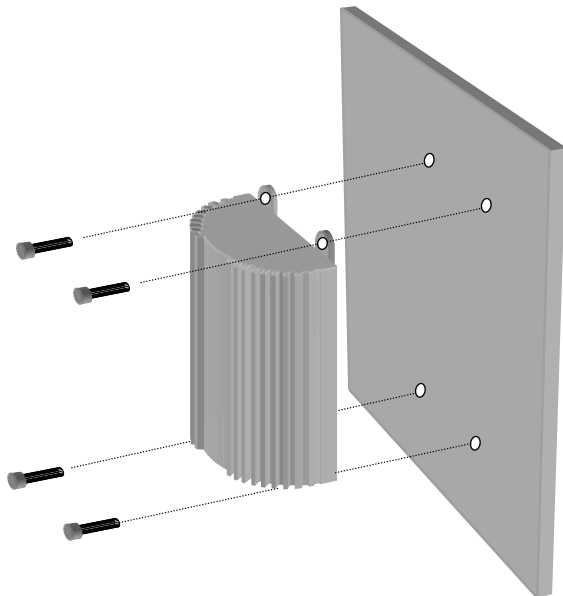


Figure 1 - Amplifier Mounting

Mounting the Volume Control:

- 1) Choose a mounting location with a flat surface the size of the volume control body
- 2) There must be at least 1-1/4" (32mm) of clearance behind the mounting area
- 3) Drill a 7/8" (23mm) hole making sure that there is nothing behind the surface that could be damaged.
- 4) Run all cables, make connections, and test the entire system. Extension cables are optionally available if required.
- 5) Position unit, remove film from foam adhesive, and adhere volume control in place. Warning, the adhesive is very, very sticky so be sure that everything is functioning, and the panel is positioned very carefully before applying pressure.

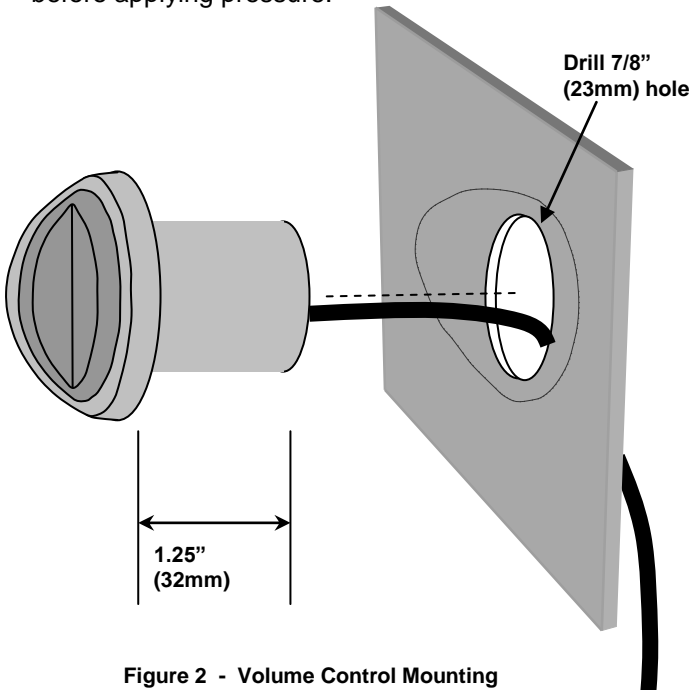


Figure 2 - Volume Control Mounting

Connecting the ME-50 Power and Speakers:

- 1) The Black and Red power wires should be connected directly to the vehicle battery or main fuse block using heavy gauge wire (AWG #16 or lower). Black = GROUND, Red = +
- 2) The Blue REMOTE wire turns on the amplifier. Connect this to the remote wire of your receiver, or connect to an on/off toggle switch or Accessory circuit.
- 3) Connect the white and grey loudspeaker wires to 1 or 2 pairs of loudspeakers. Pay close attention to polarity (black stripe = negative).

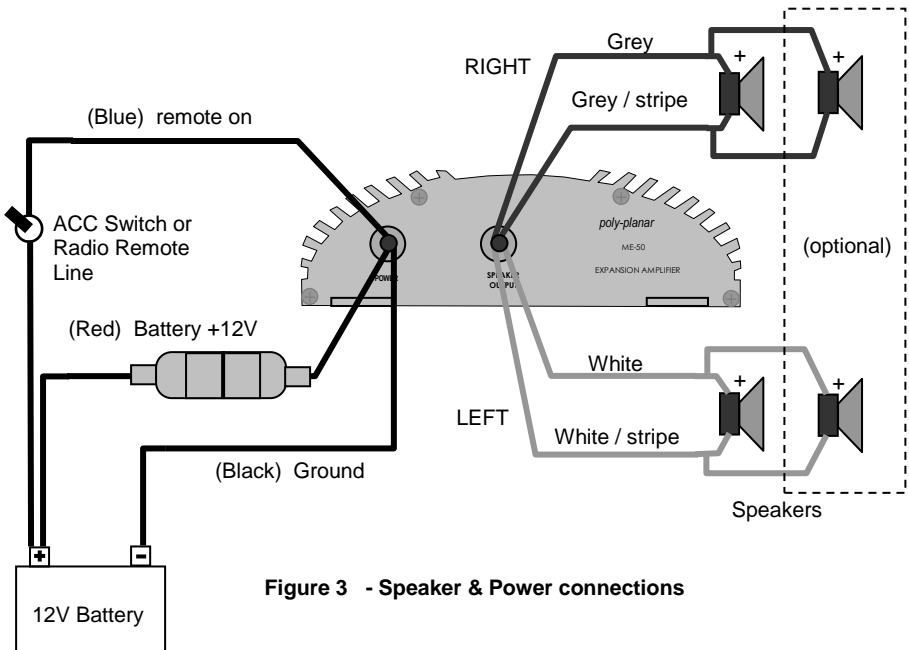


Figure 3 - Speaker & Power connections

Connecting the ME-50 Input:

- 4) For operation without the optional external volume control, connect the amplifier inputs to the VARIABLE LINE OUT of your receiver using shielded RCA patch cables. In this case the amplifier volume will be determined by the volume setting of the source component. If the receiver does not have line level outputs, the ME-50 can be connected to the speaker outputs, however line level is preferred due to superior noise and distortion performance. See Figure 6 for amplifier settings related to input connections.

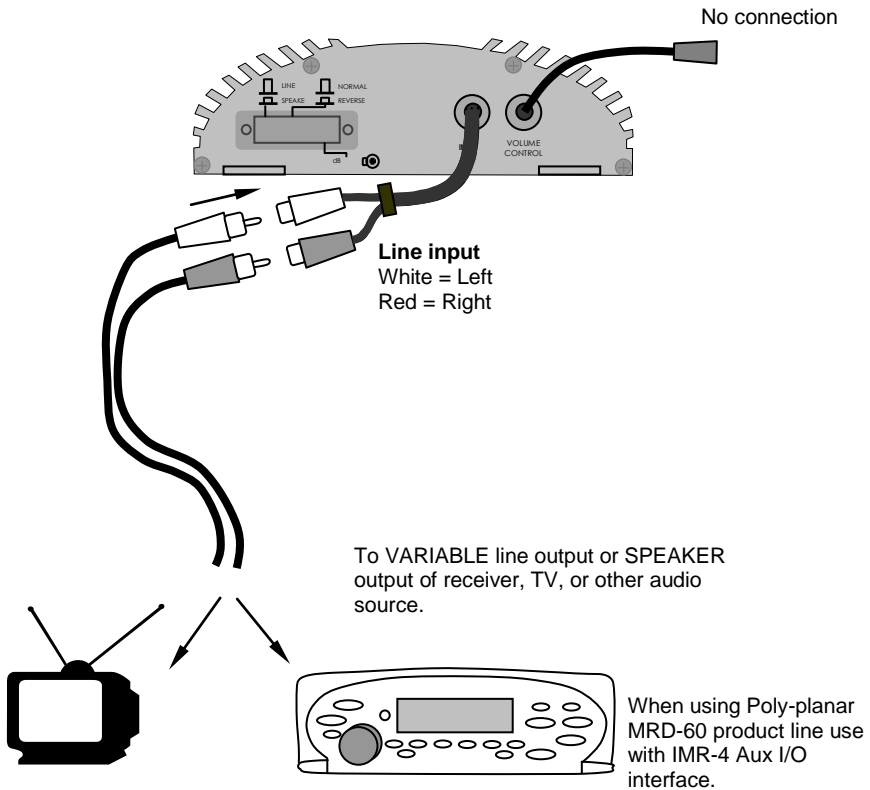


Figure 4 - Input connections without Volume control

Connecting the ME-50 Input:

- 5) For operation with the external volume control, connect the amplifier inputs to the PRE-AMP LINE OUT of your receiver using shielded RCA patch cables. The Pre-amp line output should be a fixed level output that is independent of the volume setting of the receiver.

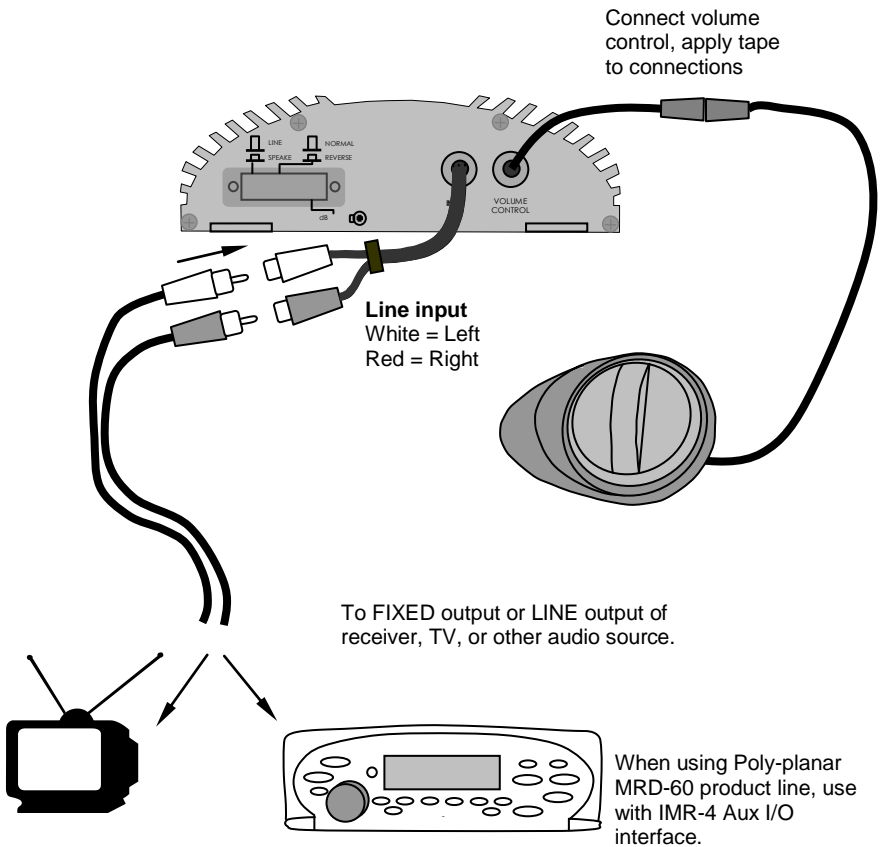


Figure 5 - Input connections with Volume control

Switch & Gain Settings:

- 6) The switches and gain settings are hidden behind a watertight seal accessible by removing the 2 screws. Be sure to replace the cover when finished with adjustments.
- 7) The INPUT LEVEL switch selects the input sensitivity of the amplifier. If you are connecting to a LINE level source (typically any RCA type connection) then the switch should be in the LINE (out) position. When connecting to loudspeaker outputs or headphone or high level sources then set the switch to the SPEAKER (in) position.
- 8) The POLARITY switch allows the user to optimize bass performance in the case that there are more than 1 set of loudspeakers producing bass in the system. Play some music with strong bass content and listen with the switch alternately in the NORMAL and REVERSE position until it can be determined which setting results in more pleasing bass response. If in doubt, or if any interaction with other speakers is unlikely, then leave the switch in the NORMAL position.
- 9) The GAIN control adjusts the overall level of the amplifier. When using the amplifier without volume control (as in Figure 4) the level should be set to achieve a balance with other loudspeakers in the system. As a rule, keep the gain setting as low as possible while still insuring that the system will reach full output power. When using the system with external volume control (as in Figure 5), set the external Volume Control to FULL (clockwise) and adjust the gain on the amplifier until full output power is reached. Full output power level can be determined by turning the gain control clockwise until the apparent loudness does not appear to increase any more. Leave the control at the setting where this begins to become apparent.

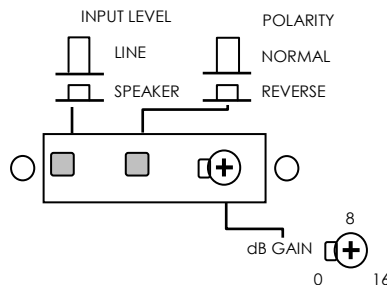


Figure 6 – Amplifier Switch and gain settings

